

**Notes from  
Aquatic Needs and Biota Transfer Breakout Session  
Red River Valley Water Supply Project  
Technical Team Meeting – September 10, 2002**

**Breakout Session Attendees**

NAME	ORGANIZATION / PHONE #	E-MAIL ADDRESS
Terry Ellsworth	US Fish & Wildlife Service 701.250.4492	Terry_Ellsworth@fws.gov
Rick Nelson	Bureau of Reclamation 701.250.4242	rnelson@gp.usbr.gov
Signe Snortland	Bureau of Reclamation 701.250.4242	ssnortland@gp.usbr.gov
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Ryan Newman	Bureau of Reclamation 701.250.4242	rnewman@gp.usbr.gov
Ed Little	US Geological Survey	
Greg Linder	US Geological Survey	
Bill Lynard	Montgomery Watson 208.345.5863	william.lynard@mw.com
Paul Stolen	Minnesota Department of Natural Resources 218.755.4068	paul.stolen@dnr.state.mn.us
Steve Colvin	Minnesota Department of Natural Resources	
Linda Weispfenning	ND State Water Commission 701.328.4967	lweispf@water.swc.state.nd.us
John Giedt	US Environmental Protection Agency 303.312.6897	giedt.john@epa.gov
Chuck Fritz	Red River Basin Commission 218.291.0422	chuckr2b2@corpcomm.net

**Session Facilitator:** Signe Snortland

**Discussion Topics for Aquatic Needs**

Ryan Newman updated the group on the in-stream flow field work that had been completed to date and described how the process unfolded. A tentative date for release of the draft aquatic needs report is December 2002.

Chuck Fritz requested that a standard operating procedures (SOP) document be prepared and included in the report. R. Newman said that an outline had been prepared and that an SOP section will be included in the report.

R. Newman discussed the specific study sites, their location, and rationale for the selection. Least impaired sites were selected from stream reaches. 'Least impaired' was determined using

existing data from Minnesota DNR, ND Health Dept., Reclamation Phase 1B report, and the Houston In-stream Flow report.

Terry Ellsworth inquired about the techniques used. R. Newman indicated that flow and habitat data were collected on a series of transects at each site that were placed to capture the cross-sectional profile of the respective river.

R. Newman indicated a need to meet with the in-stream flow group in the near future to discuss report organization. He noted that the Phase 1B report contained many of the items that various comment letters said were absent. Many comments received on Phase 1B made it clear that the report could have been better organized. The new in-stream flow report needs to be organized in such a manner that all the data and scenarios are clearly represented and easy to find and follow.

Paul Stolen suggested looking at the Phase 1B report and the comments received and asking specific questions of the group, in terms of report organization, rather than distributing copies of the report and asking for suggestions on its organization.

The group inquired about Devils Lake and asked if it was being considered. R. Newman indicated that it was and that water quality and quantity from any proposed outlet feature would be modeled.

C. Fritz suggested the report be broken into specific sections, rather than grouping sections. He indicated that a report organized into multiple sections and subsequent subsections is much easier to follow.

### **Discussion Topics on Biota Transfer**

Rick Nelson began the session with a brief discussion of how the process began, the role USGS will play in the risk analysis, and introduced Greg Linder and Ed Little from the USGS.

P. Stolen asked how the risk assessment would fit into the NEPA process and how it would be completed under NEPA.

G. Linder indicated that USGS will use existing data in their analysis. They will use data from sources like other EISs, state documents, the aquatic needs report, other USGS data on the Missouri River, etc.

G. Linder said the analysis will look at all potential pathways (existing and future) that could transfer biota. The risk analysis will characterize the likelihood of an event and identify whether effects are adverse or beneficial. It will ultimately describe what is likely to happen and the associated ecological consequences.

G. Linder went on to discuss the impact on target receptors that would be affected by transferred biota, and the identification and importance of the target receptors.

G. Linder then discussed how the economic consequence analysis will follow.

P. Stolen was concerned that the risk assessment was heavily numeric. He indicated that due to the extreme complexity of an ecological risk analysis and the dynamic nature of the environment, that a full quantitative, numeric, risk assessment would not yield true, useful results. He preferred a qualitative approach that would discuss the pros and cons of a transfer.

G. Linder indicated that risk assessments range from narratives to low-high priority rankings to full quantitative analysis. He indicated that simplified assessments can be useful but there are many additional uncertainties, and there is no way to describe the uncertainties.

G. Linder discussed how he will identify what is not known in the risk assessment. Discussing and describing what we don't know is as important as describing what we do know.

R. Nelson, getting back to P. Stolen's original question, indicated that the risk assessment is simply one component of the NEPA analysis and more will be done to address other areas.

G. Linder described how existing data will be incorporated into the assessment and indicated how, for example, zebra mussels will provide one of the best examples for modeling purposes. It will provide a full range of risk assessment numbers.

He discussed the problem formulation phase and asked the group to provide any target species they are concerned about for the analysis. He also asked the group how they would like to address sludge disposal. He stated that the list of biota of concern provided in the SPOS was preliminary and additional "biota of concern" need to be identified by the group.

P. Stolen indicated he did not like the concept of dealing with sludge because it is a product of treatment. He preferred the use of a biota containment model, rather than treatment. P. Stolen also indicated that he would provide a list of biota of concern for Minnesota, but this will take some time.

John Giedt asked if USGS intended to design a representative biota for use in the assessment. J. Giedt indicated that the designed biota (primarily pathogen) could possess attributes that make it treatment resistant.

G. Linder indicated that this could be done, however a similar analysis would be conducted determining the likelihood of occurrence of such a species. There is too much uncertainty involved when you start applying multiple resistant characteristics to a pathogen to yield any useful information.

P. Stolen stated that the ecological endpoints (assessment endpoints) should be common to both the EIS and the risk assessment.

R. Nelson stated that the biota transfer draft SPOS is simply the starting point and that feedback was needed. He said that we need to be clear on how this fits into the EIS. He also indicated that it needs to be tailored to many different audiences. R. Nelson also pointed out that there will not be a zero risk, and that there is a time limit on the studies.

P. Stolen went on to caution that numbers can be misleading to decision makers. He stated that the pros and cons of the methods employed must be explained in detail.

P. Stolen expressed concern about the technical quality of the Leitch report. He wanted to know why it was provided. R. Newman indicated that it was requested by the Technical Team and therefore provided.

It was stated that we need to compile a list in the report of reasonable foreseeable biota of concern, not just existing biota. G. Linder indicated that the final report will include this and there will also be discussion in the uncertainty section, pertaining to these species and their use. The uncertainty analysis will be conducted using the biota that have enough data.

G. Linder also pointed out that public health aspects will be included in the analysis. Treatment vs. containment should be biota specific. R. Nelson said that both treatment and containment have to be addressed under NEPA.

Bill Lynard stated that we have to be careful designating certain biota because they will be invasive no matter what. There are specific ways to address this and they need to be discussed further.

B. Lynard also discussed the comparative aspects of the alternatives (no action vs. reasonable alternatives) and how it relates to the transfer of biota.

R. Nelson asked the group for a suggested deadline to submit comments and provide lists of "biota of concern" for the analysis. October 15, 2002 was suggested and accepted by all. Comments should be sent to Signe Snortland at [awater@gp.usbr.gov](mailto:awater@gp.usbr.gov).